

Figure 1

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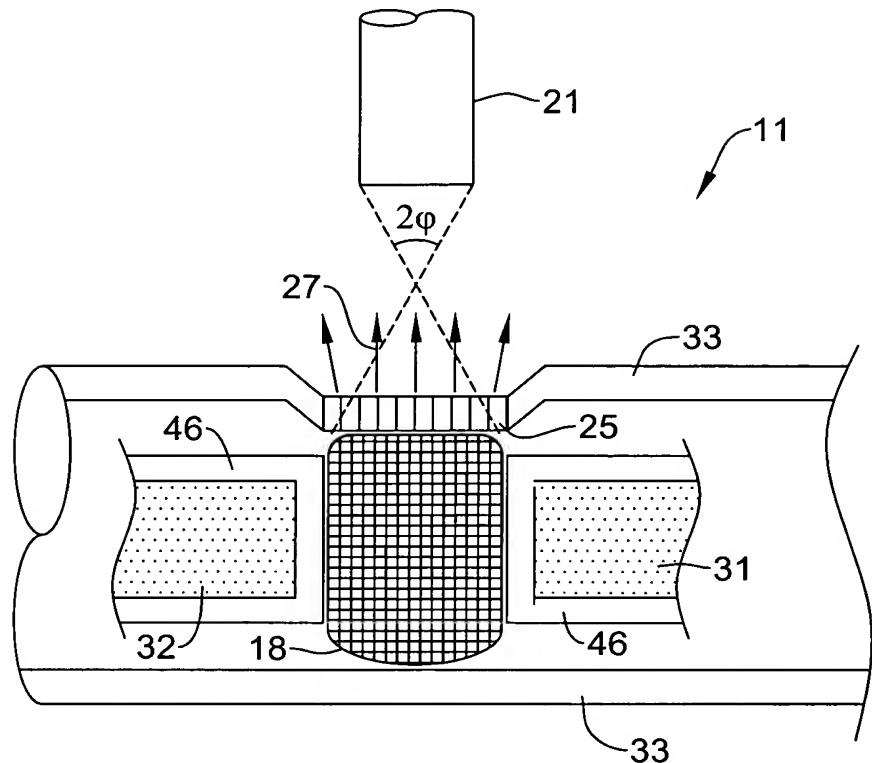


Figure 2

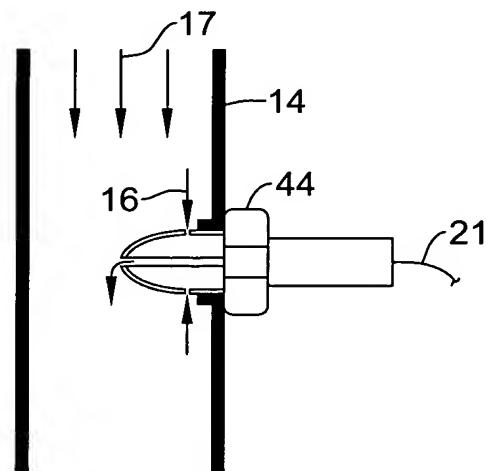
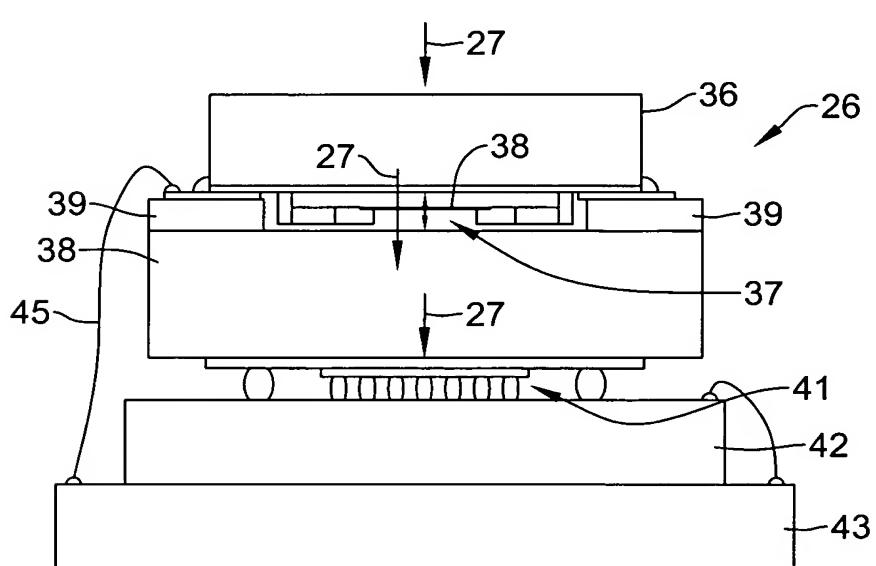
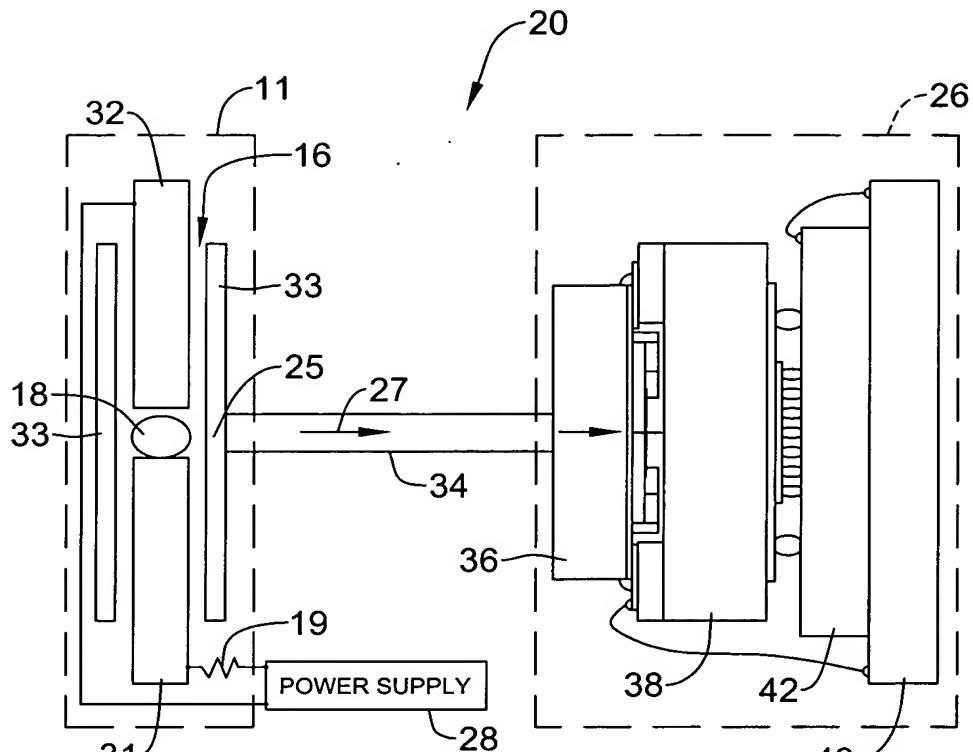


Figure 3

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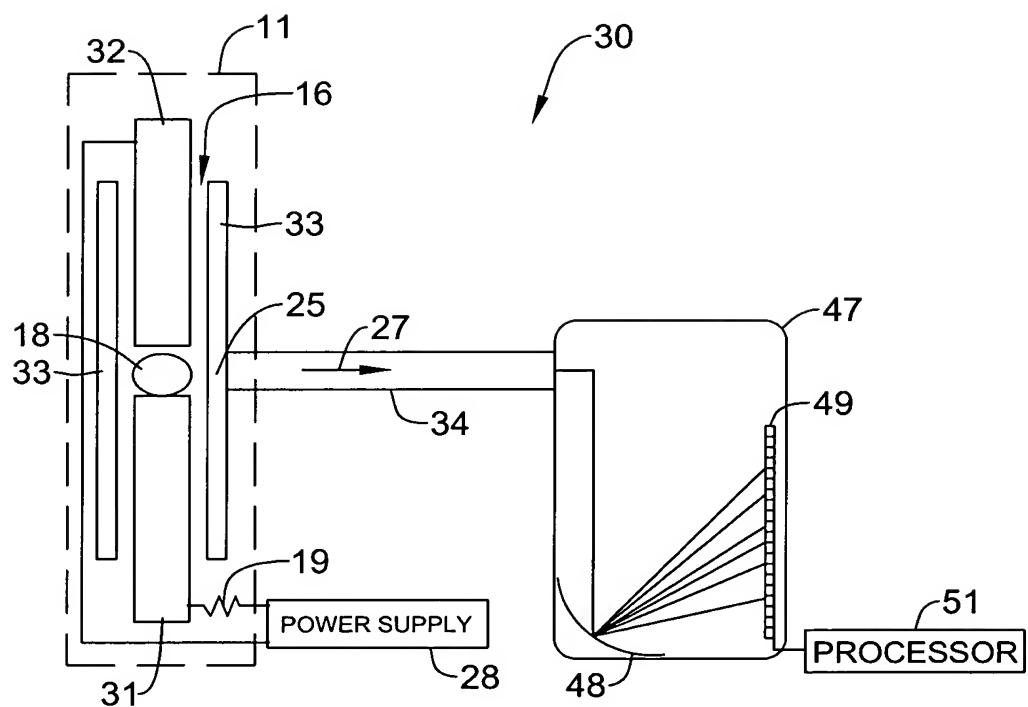


Figure 6

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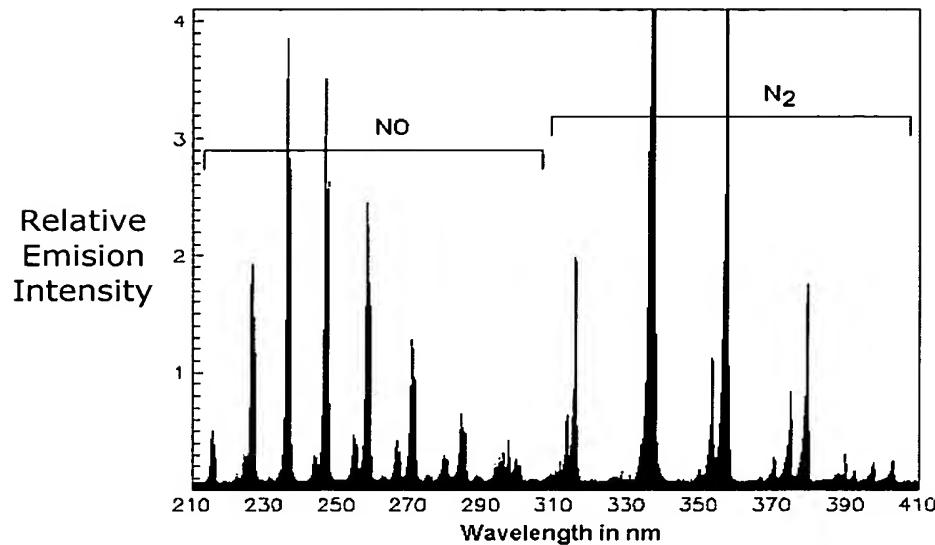


Figure 7

Ref. Index	Transm.Wavelength $\lambda_0=250 \text{ nm}$		Material	Ref. Index at 250 nm
-	$\phi = 20$	$\phi = 10$	-	-
1.0	234.92	246.20	Sapphire	1.845
1.5	243.41	248.32	Quartz	1.600
2.0	246.32	249.06	CaF ₂	1.467
2.5	247.65	249.40		
5.0	249.41	249.85		

Figure 8

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Fabry-Perot-Based Wavelength Modulation for Gas Sensing							
Gas	Band Ctr.	Tine Spac.	Line Width	$\nu/\Delta\nu$	FP-Spac.	Dither	Band Ctr.
	cm-1	cm-1	$\Delta\lambda$ in cm-1	ppm	mm	μm	nm
O ₂	13145	2.121	0.174	161	2.357	0.380373	760.746
O ₂	13145	50.000	25.000	3804	0.100	0.380373	760.746
O ₂	13090	7.229	0.174	552	0.692	0.381971	760.942
CO	2170	3.57	0.357	1645	1.401	2.304147	4608.295
NO	30000	15000	250	500000	0.000033	0.166667	333.33
NO	33333	10000	278	300003	0.000050	0.150002	300.00
							230.77
							222.22
							666.67
							166.67
							60.0
							36.0
							UV emissive
							UV emissive

Figure 9

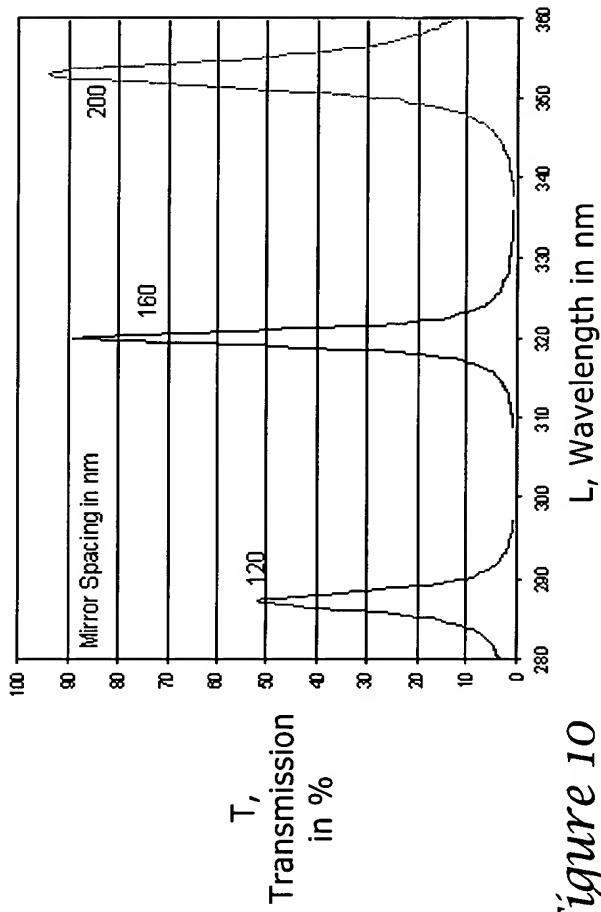


Figure 10